Oct. 3, 2009

Washington State Building Codes Council

To Whom It May Concern;

Currently you are taking comments on a number of issues related to the application of codes and/or additions to the states building standards. I would like to address and add perspective to the debate on residential fire sprinklers.

I have limited experience with these systems within residential usages but know enough to understand that inserting this into code form will be very difficult in the majority of cases, especially in the eastern more rural portions of the state.

I understand that life safety is a paramount concern in this argument but is only one small part of the equation. My experiences with residential fire sprinklers, while limited, has shown that our technology, level of education on the part of officials and water suppliers as well as how this is integrated within existing infrastructures is a long way from being able to perform to expectations.

My first experience with residential fire systems was in the City of Shoreline. The community required fire sprinklers within structures but to a large degree, couldn't supply the necessary water to meet the demand. As I have followed this over the years, this aspect seems to be the primary concern which should be fully understood prior to any calls for this in code.

Over my building career, I have constructed buildings in numerous jurisdictions which all have had differing and varied requirements. One of the most demanding but difficult to over come has been the supply of water to the residence. *It doesn't matter what codes are put in place, if the supply isn't available it will not happen.* The question to be answered is "if you put this into code, can you also guarantee that it can be done" and without incurring substantial cost increases.

Being a water purveyor for a number of small Group B water systems, my concern is what will the inclusion of this mean to existing water groups, built to supply water at current standards but not able to supply the demand that residential fire sprinklers will incur. In this type of community, generally all residences share a common access/egress corridor and the water system. If something affects either of these, it will have a pronounced affect on everyone within this community.

In almost all of these communities, the system is built to supply water with limitations on each residence. In most cases, it includes a predetermined amount of storage and water treatment as required by Washington State standards. This is applied at the source or point of withdrawal per current regulations and is determined by the available supply and quality of water. A fire or default in one structure will have a pronounced effect of the entire community. There is also the aspect of a system built under prior or existing requirements which with this addition will no longer meet the requirements for new housing being put into place.

Would the inclusion of this be applied to manufactured or modular homes? How will it apply to "dry" cabins allowed within rural settings? What about a home that is built off of a ground water source but has insufficient flow or topography to allow for the required fire flow water supply? If fire flow water storage is required, how will this be affected by prolonged periods of cold weather where storage and/or supply lines would be subject to freezing?

All in all, this proposed provision is not well thought out. Current systems of smoke detectors and heat detectors are meeting the life safety element and serves most residential structures better. The inclusion of residential fire sprinklers would become a barrier that a large percentage of residential structures could not meet. Please do not let this become something that will curtail or stop home building into the future.

Sincerely,

Jerry Martens